Dart Aerospace Ltd. Tuesday, 11/6/2007 1:38:16 PM Date Kim Johnston User **Process Sheet** : 02.500 SUPPORT : CU-DAR001 Dart Helicopters Services **Drawing Name** Customer Job Number : 35581 **Estimate Number** : 11058 11 D28921 Part Number P.O. Number .. D2892 REV A S.O. No. : Drawing Number -: 11/6/2007 This !ssue Project Number : N/A : NC Prsht Rev. : MACHINED PARTS : // Type Drawing Revision First Issue : 34063 Material Previous Run : 12/13/2007 10 Um: **Due Date** Written By Checked & Approved By Comment : Est. Additional Product Job Number: ... Description: Machine Or Operation: Seq. #: PURCHASING PG Comment: PURCHASING CL07/11/07 Issue P/O: Description: D6104-003 Material: 17-4 PH SS (AMS 5643 OR AISI 630) as per Dwg D6104 Material release note required. Blank size makes (2) D2891-1 D6104003 17-4 SS Roundbar 3.25"OD 2.0 Comment: Qty.: 1.0000 Each(s)/Unit 10.0000 Each(s) Total : Support PACKAGING RESOURCE #1 PACKAGING 1 3.0 Comment: PACKAGING RESOURCE #1 Recieive & Inspect for Transit Damage

Ensure Material Release Note is attached

MORISEIKI DOOSAN 4.0

Comment: MORI SEIKI LATHE

5.0

Turn blank for Haas as per Folio FA082

Comment: INSPECT ALL DIM TO DIM SHEET

Each

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES	DER CHANGES							
DATE	STEP	PROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector			
		⊘								
							4.			
	*	<u> </u>								

Part No: D2872-1 PAR #: NA Fault Category: Pad Machine PM NCR: Ses No DQA: Date: Octoby 109

D206-467-3-03

QA: N/C Closed: Date: Octoby 109

NCR:35	5581	W	ORK OR	DER NON-CONFORMANCE	(NCR)		44	
DATE STEP		Description of NC Section A	Initial	Corrective Action Section B Action Description	Sign &	Verification	Approval	Approval
			Chief Eng	Chief Eng	Date	Section C	Chief Eng	QC Inspector
odusta	40	the inside Bure on the	Joshuz	De Bufford and Merch Def East, Buffort month, then pant is Acceptable	J.L	odorby	Josiuer	200
		Breing Bor.						

NOTE: Date & initial all entries

Tuesday, 11/6/2007 1:38:16 PM Date: User: Kim Johnston **Process Sheet** Drawing Name: 02.500 SUPPORT Customer: CU-DAR001 Dart Helicopters Services Part Number: D28921 Job Number: 35581 Job Number: Description: Seq. #: Machine Or Operation: HAAS CNC VERTICAL MACHINING #1 6.0 HAAS1 Comment: HAAS Machine as per Folio FA082 Tumble & Deburr INSPECT PARTS AS THEY COME OFF MACHINE QC2 7.0 Comment: INSPECT PARTS AS THEY COME OFF MACHINE SECOND CHECK 8.0 Pho on Preuse page Comment: SECOND CHECK POWDER COATING POWDER COATING M107550 Comment: POWDER COATING Powder Coat White Gloss (Ref: 4.3.5.2) as per QSI 005 4.3 10.0 QC3 Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION 11.0 Comment: PACKAGING RESOURCE #1 Identify and Stock Location: 46 12.0 Comment: FINAL INSPECTION/W/O RELEASE Job Completion

Dart Aerospace Ltd

W/O:	· - · · · · · · · · · · · · · · · · · · ·	WORK ORDER CHANG	RDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector		
		·							
	*								
D4 N-									

Part No:	PAR #:	Fault Category:	NCR: Yes No	DQA:	Date:
			QA: N/C	Closed:	Date:

NCR:		V	VORK ORD	ER NON-CONFORMANC	E (NCR)							
		Description of NC		Corrective Action Section B		Verification	Approval	A				
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Approval Chief Eng	Approval QC Inspecto				
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NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order:	35581
Description: Ø2.500 Support	Part Number:	D2892-1
Inspection Dwg: D2892 Rev. A		Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing D2892 Rev. A/DSK077 Rev. A and record below:

	v		gitted on mape			ual Dimensi			
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	Ву	Date
		1		Lathe	Section				
Α	2.524	2.529		2.524	2526	2.526	2.526		
В	3.702	3.722		3.709	3.712	3.712	3.712		
C	2.814	2.834		2823	2.823	2826	2.825		
D	0.718	0.738		1727	.726	1727	.727		
E	0.090	0.110		.101	.098	.104	.100		
F	2.714	2.734		2.726	2.726	2.721	2,723		
G	2.029	2.049		2.036	2.038	2.038	2.037		
Н	3.214	3.234		3.222	3.222	3.220	3.222		
1	0.913	0.933		. 925	.926	.926	.924		
J	0.022	0.042		.032	.632	,032	.032		
K	0.090	0.110		.100	100	.095	.097		
L									-
1				HAAS	S Section				·
AA	0.115	0.135		130	- 130	. 131	.130		
AB	0.290	0.310		- 300	.300	.300	.300		
AC	0.040	0.060		.052	-051	-050	-020		
AD	0.115	0.135		-/25	./25	-125	./23		
AE	0.240	0.260		.252	-250	· 253	.ఎస్పె		
AF	0.188	0.193	DT8706	.189	.189	-189	-189		
AG	0.240	0.260		-250_	.250	-250	-250		
AH	1.126	1.146		1.135	1.140	1.145	1.143		
ΑI	0.454	0.474		464	.465	-466	466		
AJ	0.240	0.260		250	.250 °	-250	-250		
AK	0.053	0.073		. 063	-063	.063	-063		
AL	0.257	0.262	DT8683	.25¢	- 328	.258	.328		
AM	1.663	1.683		1675	1.674	1.1,74	1.674		
AN	0.053	0.073		. ୦ଔ	.063	.063	_୦ଌ3 :		
AO	0.022	0.042		.୦3ସ	.032	.032	.032,,		
AP	2.779	2.789		2.794	2.784	2.784	2.784		
AQ			í				•		
AR									
	Acc	ept/Reje	ct						

Mea	asured by:	Sme	1.5.L	Audited by	81	5, ,	
-	Date:	08/03/26/	08/04/24	Date:	08	104/24	
h						/	
Rev	Date	Change				Revised by	Approved
Α	02.12.12	New Issue				KJ/RF ↓	#

DART AEROSPACE LTD	Work Order:	35581
Description: Ø2.500 Support	Part Number:	D2892-1
Inspection Dwg: D2892 Rev. A		Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing D2892 Rev. A/DSK077 Rev. A and record below:

				Red	corded Actu	ıal Dimensi	ons		
Dim	Min	Max	Go/No Go Gauge	15	26	3/7	48	Ву	Date
•	·		-	Lathe	e Section				
A	2.524	2.529		2 527	2.528	2,526	2.526		
В	3.702	3.722		3.712	3.7/3	3.713	3.713		
С	2.814	2.834		2.822	2,824	2.825	2.825		
D	0.718	0.738		. 730	730	,730	-729		
E	0.090	0.110		.101	.099	.099	.100		
F	2.714	2.734		7 727	2.727	2.727	2.727		
G	2.029	2.049		2.038	2.038	2 027	2.038		
Н	3.214	3.234		3.226	3.222	3.220	3.222		
ı	0.913	0.933	1 1111111111111111111111111111111111111	.926	.925	. 923	.925		
J	0.022	0.042		.032	.032	032	· n32		
K	0.090	0.110		.099	.097	.096	.098		
L									
				HAAS	S Section				
AA	0.115	0.135		-/3/	-131	./32	-/31		
AB	0.290	0.310		.300	-360	.360	.300		
AC	0.040	0.060		.051	-050	.052	~O5O		
AD	0.115	0.135		./23	./23	-124	.124		
AE	0.240	0.260		. 252	. <u>ଅ</u> ଟରୁ	. 254	.253 .189		
AF	0.188	0.193	DT8706	. 189	.189	.189	. 189		
AG	0.240	0.260		.250	. 250	.250	.250		
AH	1.126	1.146		1.143	1/43	1-142	1.141		
Al	0.454	0.474		466	·466	.467	.467		
AJ	0.240	0.260		250	·250	.250	.250		
AK	0.053	0.073		-063	· 063	.063	.063		
AL	0.257	0.262	DT8683	.258.	-258	258	258		0.00
AM	1.663	1.683		1.674	1.674	1.675	1.675		
AN	0.053	0.073		-063	.063	-063	.063		
AO	0.022	0.042		.032	୍ଟ୍ରେ		.622.		
AP	2.779	2.789		2.784	N/L'B	232 2784	2784		
AQ									
AR									
	Acc	ept/Reje	ct						

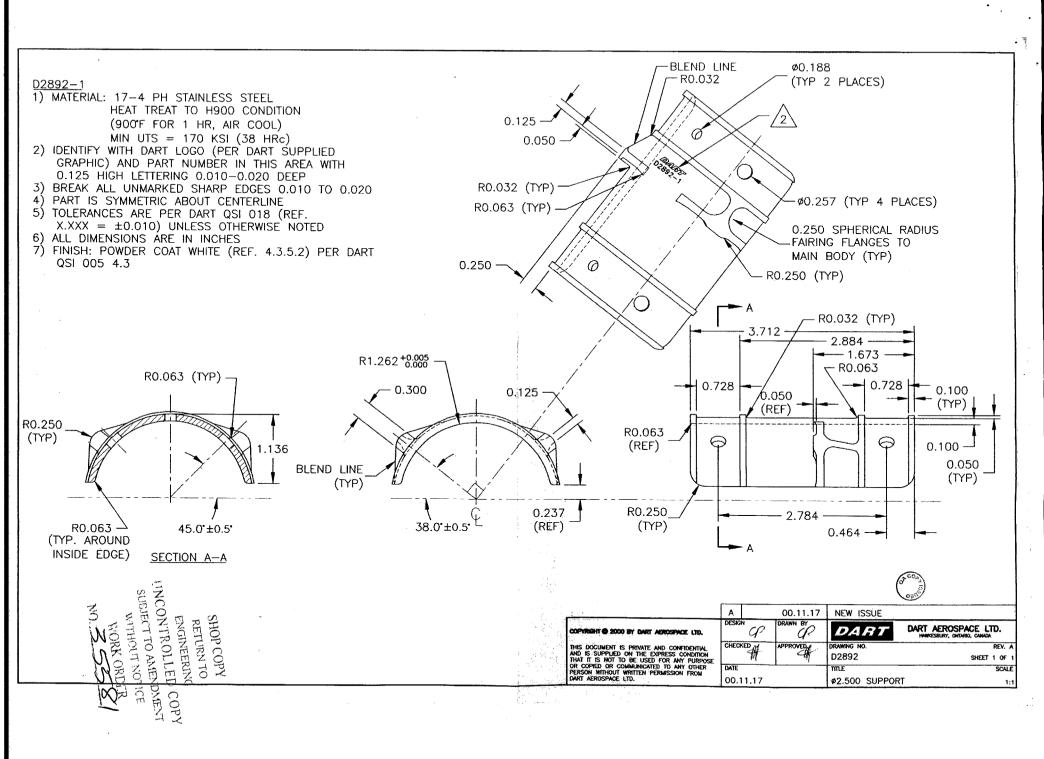
	Accept	rtojeot	
Mea	asured by:	9ml / J.L.	Audited by $\lambda \gamma$
		8/03/26/08/04/08	Date: 08/54/24
Rev	Date	Change	Revised by Approved
Δ	02.12.12	New Issue	KJ/RF ↓

DART AEROSPACE LTD	Work Order:	35581
Description: Ø2.500 Support	Part Number:	D2892-1
Inspection Dwg: D2892 Rev. A		Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing D2892 Rev. A/DSK077 Rev. A and record below:

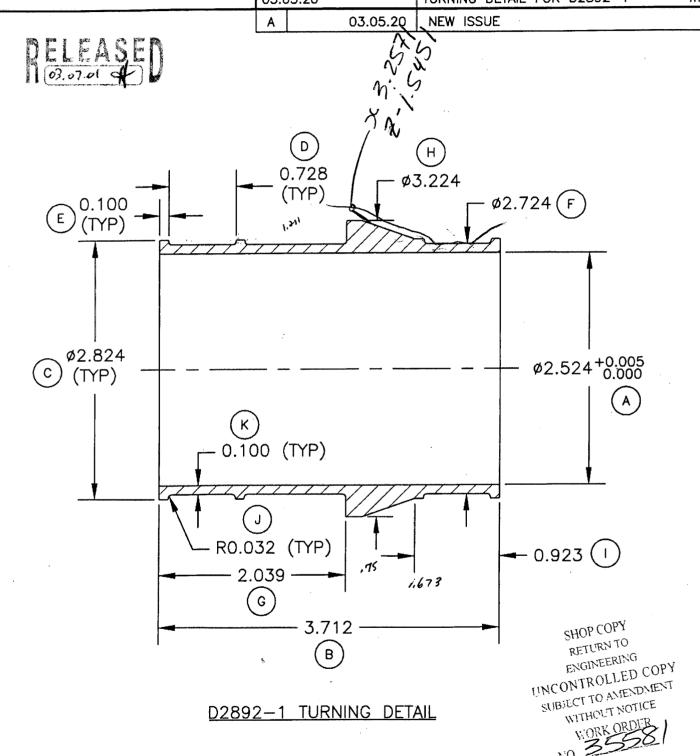
				Recorded Actual Dimensions					
Dim	Min	Max	Go/No Go Gauge	x9	210	8	A	Ву	Date
				Lathe	e Section				
Α	2.524	2.529		2.527	2,526				
В	3.702	3.722		3.712	3.711				
С	2.814	2.834		2.821	2.828				
D	0.718	0.738		, 723	730				
Е	0.090	0.110		.104	.101				
F	2.714	2.734		2.726	2.728				wa
G	2.029	2.049		2.038	2.037				
Н	3.214	3.234		3.220	3.225				
I	0.913	0.933		.923	.928				
J	0.022	0.042		.032	.032				
K	0.090	0.110	-	. 095	.604	***************************************			
L									
				HAAS	S Section				
AA	0.115	0.135		-131	-/3/				
AB	0.290	0.310		-300	-360				
AC	0.040	0.060		.050	.050				
AD	0.115	0.135		.123	.050 ./24				
AE	0.240	0.260		.253	.252				
AF	0.188	0.193	DT8706	189	.252				
AG	0.240	0.260		.250	.250				
AH	1.126	1.146		1.143	1.140		,		
ΑI	0.454	0.474		.465	465				
AJ	0.240	0.260		-250	.360				
AK	0.053	0.073		.063	.063				
AL	0.257	0.262	DT8683	258	-258				
AM	1.663	1.683		1675	1673				
AN	0.053	0.073		\sim	-063				
AO	0.022	0.042		.032	2.784				
AP	2.779	2.789		2.784	2.784				
AQ									
AR									
	Acc	ept/Reje	ct						

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15-61	Audited by X, /						
08/04/24	Date: 08/04/24						
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}			KJ/RF	#			
- -	/ J.L 08/04/24	08/04/24 Date	08/04/24 Date: 0	08/04/24 Date: 08/04/24 Revised by			





DRAWN BY DESIGN DART AEROSPACE LTD A HAWKESBURY, ONTARIO, CANADA APPROVED CHECKED DRAWING NO. REV. A DSK 077 SHEET 1 OF 1 SCALE TITLE DATE 03.05.20 TURNING DETAIL FOR D2892-1



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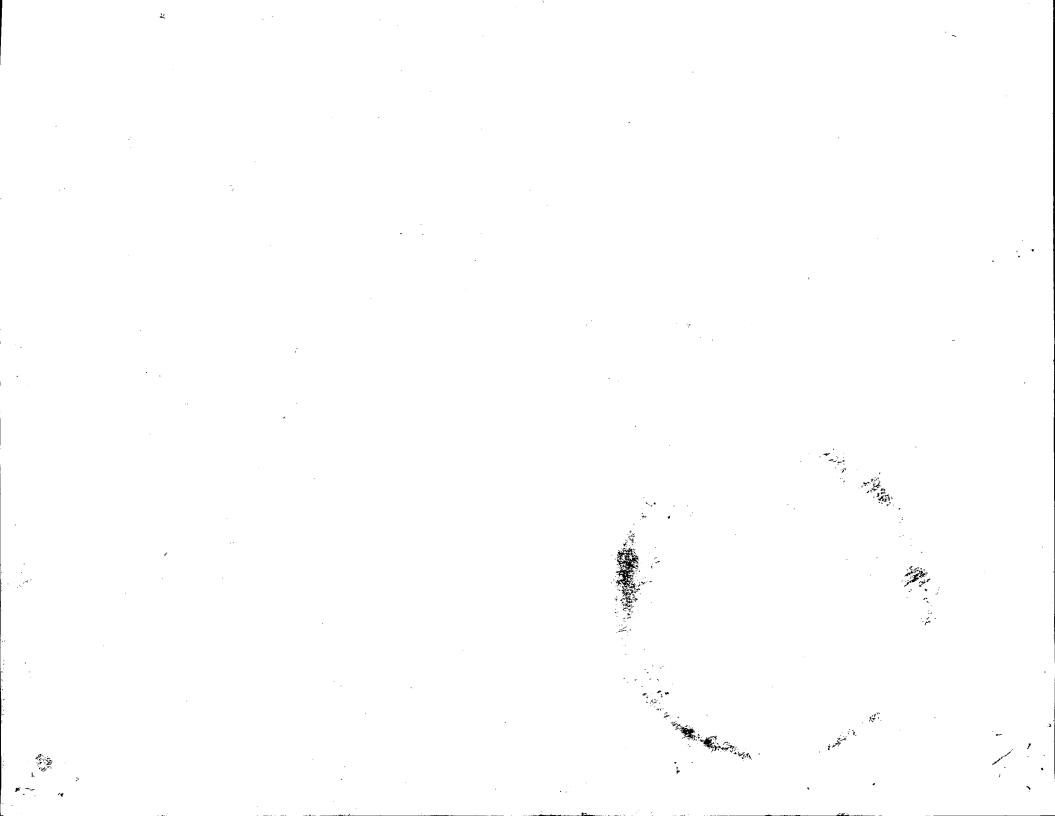
P.U. BUX 9// SYRACUSE **NEW YORK 13201**

CERTIFICATE OF TEST

OUR ORDER NO. 5-16226-7-01 A M CASTLE, INC A M CASTLE, INC DATE 26800 MILES RD 3400 H WOLF RD 11/01/07 BEDFORD HEIGHTS OH 44146 11 50131 FRANKLIN FARK, IL OHIPPED CUSTOMER REO. # CUSTOMER ORDER & B DATE DISTRICT SYRACUSE FROM D PARSONS 10~34264 DESCRIPTION OF VATERIAL SIZE 3.250 RD CRU 17-4PH RT A IAC 42470 ANC-3174-02 REV 26 ASME-SAU64-07ED T630 ASTM-A564-04 T630 AMS-2303E AMS-56430 (EX SURF) AISI 630 UNS-917400 CHEMICAL ANALYSIS MEAT NO. TA CU CB MO CR G, SI NI \mathbb{C} MN 61909E .010 3.20 . 31 4.23 15.22 . 1.3 .026 .66 ·029 . 039 .46 CASTLE METALS CORP. DATE RCVD IAC 4247 APPROVED MECHANICAL PROPERTIES PTITMAUC MEAT NO. MARDNESS 981 # A19095 BHN 358 CAPABILITY PHYSICALS AFTER 900 DEG. F. - 1 HR. AIRCOOL: 50.2 BHN 401 12.6 176,620 199,390 MACHO TEST DK FERRITE 5.X MAGNAFLUX F/S = 0/0 ELECTRIC FURNACE AOD MELTED REDUCTION RATIO: 27.511 AT TEMPERATURE -HATERIAL SOLUTION TREATED AT 1900 DEG. F. HELD 45 MIN AIRCOOLED. CRUCIPLE MATERIALS CORF. VENDOR \$18610. MATERIAL INDOT CAST. NAFTA - YES CORRECTED COPY ORIGINAL SENT 10/17/07 THANK YOU FOR SELECTING A QUALITY PRODUCT MATERIAL PAGE PROM MERCURY CONTAMINATION AT TIME OF SHIPMENT MANUFACTURED BY THE EMPLOYEES OF CRUCIBLE SPECIALTY METALS NO WELD REPAIR PERFORMED THE ABOVE MATERIAL WAS MANUFACTURED AND TESTED IN ACCORDANCE MATERIAL NELTED IN U.S.A. WITH ABOVE SPECIFICATIONS AND IS IN CONFORMANCE WITH THOSE SPECIFICATION REQUIREMENTS. SWORN TO AND SUBSCRIBED BEFORE ME THIS ALTHURETALB DIVISION MOH ITS SPEG _ DAY OF _ CERTIFIED

NOTARY PUBLIC

JACKIE L. WHITE - SPECIFICATION EXAMINES



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P.O. BOX 977 SYRACUSE NEW YORK 13201

THICATE OF TEST

A H CASTLE, INC.

3400 H CELF AD FRANKLIN FARKA

50131

DASFLE, INC

26800 MILES RD BEDFORD REIGHTS OH 441 46

OUR ORDER NO. テジーしょうほう・フーベ

こまと16/07

DATE

CUSTOMER DROER # & DATE 10-31163

CUSTOMER REQ. #

E FARSONS

SHIPPED FROM

SYRACUBE

DESCRIPTION OF MATERIAL

AHS-56 430

CRU 17-4PH RT A AMC-3174-10 REV 7

IAC 42470 ASME-SA564-04ED T630

DISTRICT

UNS-S17400 AISI 630

SIZE 3,250 RD

ASTH-A564-04 T630

Alirbo

CHEMICAL ANALYSIS HEAT NO. Tree CU Ĩ. 210 1 î ïĸ * ä 3 I MN ũ 218939 .012 .29 3.22 4.09 15.28 .11 .022 ,63 .027 .037 . 42

> CASTLE METALS CORP. DATE RCVD . APPROVED BY

HEAT NO. QUANTITY

1811 # A18939

YLD.2%FRZ TENSILE PSI

ZELONG45

MECHANICAL PROPERTIES

SEDIAREAS

HAR DINE 55

BHN 358 SC 35

CAPABILITY PHYSICALS AFTER 700 DEG. F. - 1 HA. AIRCOOL: 203,000

174,050

12.5

51.1

ELP NHE

MACRO TEST ON FERRITE S X HAGNAFLUX F/S = 0/0

MATERIAL WELTED IN U.S.A.

REDUCTION RATIO: 27,511 AT TEMPERATURE -HATERIAL SOLUTION TREATED AT 1900 DEG. F. HELD 45 HIMUTES AIRCCCLED.

CAUCIBLE MATERIALS CORF. VEHDOR \$15510. HATERIAL INGGT CAST. SAFTA - TEB

MATERIAL FREE FROM MERCURY CONTAMINATION AT TIME OF SHIPMENT NO WELD REPAIR PERFORMED

THANK YOU FOR SELECTING A GUALITY PRODUCT

MANUFACTURED BY THE EMPLOYEES OF CRUCIBLE SPECIALTY METALS THE ABOVE MATERIAL WAS MANUFACTURED AND TESTED IN ACCOMMITH ABOVE SPECIFICATIONS AND IS IN CONFORMANCE WITH

SWORN TO AND SUBSCRIBED BEFORE ME THIS

___ DAY OF .

CENTIFIED BY:

QUALITY ASSURANCE REPRESENTATIVE ATTIK

SPECIFICATION REQUIREMENTS.
CRUCIBLE MATERIALS CORPORATION
ACTING BY AND THROUGH ITS SPECIALTY METALS DIVISION

NOTARY PUBLIC

